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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/365,517	08/02/1999	HAMID K. AGHAJAN	M-7793-US	1904

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APPLIED MATERIALS, INC.
2881 SCOTT BLVD. M/S 2061
SANTA CLARA, CA 95050

EXAMINER

CHAWAN, SHEELA C

ART UNIT

PAPER NUMBER

2625

13

DATE MAILED: 03/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/365,517

Applicant(s)
Hamid K. Aghajan

Examiner
Sheela Chawan

Art Unit
2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jan 13, 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Aug 2, 1999 is/are a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

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DETAILED ACTION

Terminal Disclaimer

1. Terminal Disclaimer filed on Jan 13, 2003 is Acknowledge .

Response to Amendment

2. Applicant's arguments filed on Jan 13, 2003 (paper # 11) have been fully considered but are deemed to be moot in view of the new grounds of rejection.

Drawings

3. The drawings are objected to because of draftperson's remarks (see attached PTO-948 paper number 13 . A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 U.S.C. § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, or (2) a patent granted on an application for patent by another filed in the United State before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351 (a) shall have the effects for purposes of this subsection of an application designated the United States and was published under Article 21 (2) of such treaty in the English language.

Claims 1-7, are rejected under 35 U.S.C. 102(e) as being anticipated by Lee et al.,

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(US.5,808,735) .

As to claim 1, Lee teaches an image processing system, a method for relating a first image (note, first image is test image) to a second image (note, second image is reference image second image) comprising (abstract) :

(a) aligning the first image (note, first image is test image) with a second image (note, second image is reference image second image , fig 2A item 210);

(b) plotting a gray level of a pixel from the first image against a gray level of a corresponding pixel from the second image for all aligned pixel locations (note, the test image and the reference images are aligned based on the intensities of the two images . These two images are being compared pixel-by - pixel, the difference in intensities between test and the reference pixels are then used to create an intensity histogram , (column 5, lines 54- 66, column 6, lines 21- 33) .

As per claim 2, Lee teaches the method of claim 1 further comprising plotting (note, the peak value of the intensity histogram represents the most common intensity difference between test and reference pixel , column 11, lines 16- 24) a threshold window on a plot created in step (b) (column 6, lines 1- 5, column 10, lines 43-57) .

As per claim 3, Lee teaches the method of claim 1 wherein a plot created in step (b) is stored in a memory array variable (column 6 , lines 41- 56) (b).

As per claim 4, Lee teaches the method of claim 1, wherein a plot created in step (b) is displayed on a video monitor (fig 1, item 60, column 4, lines 20- 29) .

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As per claim 5, Lee teaches a computer-readable medium storing a program for carrying out the method of claim 1 (column 7, lines 5 - 9) .

As per claim 6, Lee teaches a computer-readable medium comprising:
a plurality of memory locations storing (column 7, lines 35- 64) data representing a first image and an associated second image (column 7, lines 35-64)) , said first and second images each having a plurality of pixels with each pixel being defined by a location coordinate (column 7 , lines 35- , 31) and a gray level (column 13, lines 4- 10) ; and,

As per claim 7, Lee teaches a defect inspection system comprising:

(a) an image acquisition unit (fig 1, item 50) being operable to acquire a first image and an associated second image (column 4, lines 45- 50) the first and second images each having a plurality of pixels with each pixel being defined by a location coordinate (column 13, lines 4-31) and a gray level (column 2, lines 10- 14, column 6, lines 21-33, column 13, lines 4-31) ;

(b) a plurality of memory locations storing data representing the first image and the second image (column 6, lines 41- 56) ; and

(c) a processor (fig 1, item 20) being operable to plot the gray levels of pixels from the first image against the gray levels of corresponding pixels from the second image (note, the test image and the reference images are aligned based on the intensities of the two images . These two images are being compared pixel-by - pixel, the difference in intensities between test and the reference pixels are then used to create an intensity histogram , (column 5, lines 54- 66, column 6, lines 21- 33).

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Contact Information

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheela Chawan whose telephone number is (703) 305-4876.

If attempts to reach the examiner on Monday through Thursday from 8:30 a.m. to 5: 00 p.m. by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta , can be reached at (703) 308- 5246.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872 - 9314, (for formal communications intended for entry)

Or: Any inquiry of a general nature or relating to the status of this application should be directed to the Group Receptionist whose telephone number is (703)305- 4750.

SCe

Sheela Chawan
Patent Examiner
Group Art Unit 2625
March 21, 2003



**BHAVESH M. MEHTA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600**